

THE "TRIPLARIS SCANDENS (VELL. CONC.) COCUCCI"
COMPLEX (POLYGONACEAE)

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COCUCCI (1957a) published the combination *Triplaris scandens* (Vell. Conc.) Cocucci based on *Magonia scandens* Vell. Conc. (1829). *Magonia* Vell. Conc. is illegitimate, being a later homonym of *Magonia* A. St. Hil. (Sapindaceae). As synonyms of his *Triplaris scandens*, Cocucci listed *T. laurifolia* Cham. & Schldl. (1828), *T. macrocalix* Casar. (1845), *Ruprechtia lundii* Meisner (1855), *R. obidensis* Huber (1909), *R. macrocalix* Huber (1909), and *R. scandens* Rusby (1927). He later (1965) added to the synonymy *R. zernyi* (Standley) Howard, which I had transferred from the genus *Coccoloba*. A reexamination of the original descriptions, authentic specimens as available, and more recent collections indicates that this is a heterogeneous assemblage. I suggest that four species—*Ruprechtia crenata* (Casar.) Howard, *R. laurifolia* (Cham. & Schldl.) Meyer, *R. lundii*, and *R. obidensis*—be recognized within "*Triplaris scandens* (Vell. Conc.) Cocucci."

Cocucci's publications on species of *Ruprechtia* (1957a, 1957b, 1961, 1965) have established the vegetative characters of a hollow pith and persistent ocreae for distinguishing *Triplaris* from *Ruprechtia*, which has solid internodes and caducous ocreae. Brandbyge (1982), in an unpublished thesis I have been privileged to study, found that these characters are not exclusive. He described some species of *Triplaris* with solid stem internodes and some with nonpersistent ocreae. He also altered Cocucci's proposed interpretation of the inflorescence, as well as his emphasis on the narrowed hypanthium base in *Ruprechtia*. In general, the species of *Ruprechtia* are small trees or bushes of dry areas, while *Triplaris* is represented by larger trees with much larger leaves and is generally found in wetter areas. Although one can easily distinguish specimens of *Triplaris* from specimens of *Ruprechtia* by general appearance, assigning unambiguous key characters to separate the two genera is difficult. Relating the staminate and pistillate plants of a species is also difficult in both genera. Some species are represented in herbaria primarily by staminate specimens, others by pistillate specimens or fruiting material. Although perianth characters of pistillate plants and achene characters seem reliable, size and shape of the mature fruiting perianth have not been determined for all species.

Cocucci's "*Triplaris scandens* complex" presents additional problems. Some plants are described as lianas or vines, a growth form not previously recognized in either *Triplaris* or *Ruprechtia*. These may have either solid or hollow stems, and the ocreae are either persistent or caducous. In the specimens available for study, the leaves on the main stems are commonly larger than those on the

terminal portions of the stem or on the axillary branches. The majority of staminate plants have the inflorescences on the main stem, which rarely has axillary branches. The specimens with pistillate flowers or fruits seem to represent either terminal portions of a main branch or axillary branches. Staminate inflorescences are branched from the base as fascicles of racemes or are paniculate. Pistillate inflorescences are infrequently paired and rarely branched above. The fruiting perianth is accrescent in both the hypanthium and the lobes. Fully mature fruiting perianths are not known for all species.

Brandbyge (1982) did not accept *Triplaris scandens* in his monographic treatment of *Triplaris*; in fact, he suggested that its proper position was in *Ruprechtia* and that more than one taxon was involved. I agree with Brandbyge that the component species involved in the circumscription of *Triplaris scandens* sensu Cocucci are better accommodated in *Ruprechtia*. Neither Cocucci or Brandbyge nor I have seen all of the types to establish beyond doubt the correct names for some of the more difficult taxa. None of us has assembled material from the many herbaria in Brazil; we hope our colleagues there will examine these conclusions and seek the necessary mature collections in future field work.

***Ruprechtia crenata* (Casar.) Howard, comb. nov.**

Triplaris crenata Casar. Nov. Stirp. Brasil. Dec. 9: 80. 1844.

Ruprechtia carpinoides Meisner in Martius, Fl. Brasil. 5(1): 58. 1855.

Casaretto based *Triplaris crenata* on an unnumbered Riedel collection from Rio de Janeiro. It is not clear whether the holotype is in Turin, Genoa, or elsewhere. Correspondence on this problem has not been answered.

Meisner based *Ruprechtia carpinoides* on a staminate specimen in the De Candolle herbarium and suggested that it may be *Triplaris crenata* Casar. Cocucci (1961) placed it in the synonymy of *T. crenata*, stating that he had not the slightest doubt they were one and the same species, but he did not state whether he saw the material of Casaretto. A Field Museum photograph (neg. #7413, GH) of the "type" in the Delessert Herbarium shows a staminate plant that was collected "R. Jan. Jan. 1838, Brezil"; however, the name "Lund" as collector is crossed out and "Riedel" is written in. A Riedel specimen without number (NY) was collected in "Rio de Janeiro Jan. 1883 [sic]" and is probably a true isotype. Two Glaziou collections from Rio, 12115 (κ) and 19761 (κ), can be assigned here.

In his unpublished manuscript Brandbyge (1982, p. 70) concluded that *Triplaris crenata* "must belong to *Ruprechtia*." Descriptions refer to the plants as trees "40 pedalis ex Riedel" and to specimens of *R. carpinoides* as "a very high tree." Clearly this is not comparable to *Triplaris scandens* sensu Cocucci.

***Ruprechtia laurifolia* (Cham. & Schldl.) Meyer, Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 6(2): 150. 1840.**

Triplaris laurifolia Cham. & Schldl. Linnaea 3: 55. 1828.

Triplaris macrocalyx Casar. Nov. Stirp. Brasil. Dec. 9: 79. 1845.

For *Triplaris laurifolia*, Chamisso and Schlechtendal cited a collection made and sent by Sellow (*s.n.*, *s.l.*). A collection of a staminate plant from Brasilia aequinoctialis, *Sellow 1395* (B), may be the holotype.

The type of *Triplaris macrocalyx* was described without location or collector and is therefore presumably a specimen collected by Casaretto from "Taypú" in the province of Rio de Janeiro. Brandbyge (1982) excluded both names from *Triplaris*.

Several collections by Riedel and by Riedel and Luschnatt bear a herbarium name honoring Riedel by "Hauk" as "spec. nov. with affinities to *R. laurifolia* det. E. Hassler." Neither "Hauk" nor any reference to a publication by Hassler can be traced.

ADDITIONAL SPECIMENS SEEN. **Brazil.** Without further locality, *Clausen s.n.* (US). EDO. RIO DE JANEIRO: without further locality, *Gardner 5593* (BM, K), *Glaziou 6703* (K), 8905 (K), 12116 (K), 13.134 (US, a collection of 2 sheets with different localities: on one "Province of Goyas" is printed and Goyas is crossed out; on the other "Province of" is printed, "Rio-Janeiro" is stamped on, and above this is written "Minas"), *Mrs. Graham s.n.* (K), *Martius 67* (K), *Miers 3753* (K), *Riedel 672* (A, GH), *s.n.* (K), *Riedel & Luschnatt 672* (NY, US), 1374 (US), *Sello 631* (BM, K), *s.n.* (BM, K), *St. Hilaire 104* (NY), 109 (K, NY), *Tweedie 110* (K), *Weddell 479* (A); Jacarépaguá, *Vidal s.n.* (A).

***Ruprechtia lundii* Meisner in Martius, Fl. Brasil. 5(1): 53. 1855.**

Lund 578, photographed by Macbride among the types in the Delessert Herbarium (Field Mus. neg. #7416, GH), appears to consist of a leafless branch with staminate inflorescences, a leafless branch with large mature fruits, and a separate cluster of four leaves. One label states only "Bresil" as the location but bears the number 578 and the date 1839. A second label, without number, states, "R. Jan. Sept. 33" and "Bresil, ms Lund 1839." Two specimens at NY are possible isotypes: *Lund 578* was collected "in monte prope Brioca (Rio de Jan.)," and *Lund N 576* at "Vende Grande, prope Rio Janeiro 9/1833." Meisner did not indicate a type but cited several collections in w, DC, and M. Cocucci (1957a, p. 362) stated he saw "el isocótipo SCHOTT 4562" but did not indicate the herbarium or any label details, nor did he select a lectotype.

Ruprechtia lundii Meisner forma *minor* Meisner (*in Martius, ibid.*), with the type *Blanchet s.n.*, is based only on isolated fruits.

The large fruit of *Ruprechtia lundii* exemplified by *Lund 578* is matched by the recent collection *Prance & Ramos 6991* (A, US) made along the Pôrto Velho to Cuiabá highway, Territory of Rondônia, Brazil. A second collection, *Cordeiro 603* (A) from Estrada Belmonte, Terr. de Rondônia, appears to be the same, with younger pistillate flowers. The leaves of these collections are comparable to those of *Lund 578* (Field Mus. neg. #7416); they differ from those of the specimens I cite of *R. laurifolia* and *R. obidensis*. Rio de Janeiro and Territorio Rondônia are admittedly widely separated.

***Ruprechtia obidensis* Huber, Bol. Mus. Paraense Hist. Nat. 5: 344. 1909.**

Magonia scandens Vell. Conc. Fl. Flumin. 165. 1825 [1829], Icones 4: pl. 60. 1827 [1831].

Triplaris scandens (Vell. Conc.) Cocucci, Rev. Fac. Ci. Exact. Fís. Nat. Univ. Nac. Córdoba **19**: 361. 1957.

Ruprechtia apetala Wedd. var. *sprucei* Meisner in DC. Prodr. Syst. Nat. Regni Veg. **14**: 182. 1857.

Ruprechtia scandens Rusby, Mem. New York Bot. Gard. **7**: 237, 238. 1927.

Ruprechtia macrocalyx Huber, Bol. Mus. Paraense Hist. Nat. **5**: 345. 1909.

Coccoloba zernyi Standley, Publ. Field Mus. Hist. Nat., Bot. Ser. **22**: 18. 1940.

Ruprechtia zernyi (Standley) Howard, J. Arnold Arbor. **41**: 357–390. 1960.

Vellozo's name *Magonia scandens* cannot be transferred to *Ruprechtia* because of *Ruprechtia scandens*. I do not know if a voucher specimen for *Magonia scandens* exists. Vellozo's plate with the dissection may typify the taxon. The plant was collected "Reg. Praedii S. Crucis." Cocucci expressed no doubt in transferring the specific name to *Triplaris*. Brandbyge thought that Cocucci's concept of *Triplaris* was in error and so excluded the Vellozo name from his treatment of *Triplaris*.

The first available name for this species is *Ruprechtia obidensis* (1909) based on *Ducke 2899* (staminate) and *Ducke 2901* (pistillate) from Óbidos, Edo. Pará, Brazil. Presumably a specimen exists in the herbarium of Museu Goeldi, and the pistillate/fruited plant should be chosen as the lectotype. The original description clearly describes immature fruits, and Field Museum negative no. 8492 (GH) of an isotype in the Delessert Herbarium shows a pistillate plant without evident fruit. Huber compared this species with *Ruprechtia laurifolia*, stating it differed in the long, acute leaves. Cocucci (1957a) concluded that the differences were not of taxonomic value and placed the species in the synonymy of his *Triplaris scandens*.

Ducke accepted the name *Ruprechtia obidensis* and indicated that a synonym was *R. macrocalyx*. Huber described *R. macrocalyx* at the same time as *R. obidensis* and cited *Ducke 8540* (pistillate) and *Ducke 8539* (staminate) from Faro, Edo. Pará, Brazil. His description emphasizes the large fruited calyx. The specific name "macrocalyx" would have been a preferable choice, had Ducke carefully considered the original descriptions. Loose specimens of *Ducke 8540* and *8539* in the Delessert Herbarium have been combined in one photograph (Field Mus. neg. #8493, GH), but the young fruits pictured are not the same size as those described by Huber. A lectotype for *R. macrocalyx* must be sought elsewhere.

Spruce 639, from Santarém, Edo. Pará, was described as *Ruprechtia apetala* Wedd. var. *sprucei* by Meisner. The specimen in the Delessert Herbarium (Field Mus. neg. #7414, GH) is staminate.

Ruprechtia scandens is based on material from head of Beni River, Edo. La Paz, Bolivia, 18 Aug. 1921, cited as *Rusby & White 972*. The holotype (NY) has a Rusby field label with "Rusby" crossed out and "White" written in. Among his observations, White noted that the stems were hollow but no ants were present in twelve staminate vines examined. An isotype (GH) collected on 18 August 1921 has a few young pistillate flowers just past the receptive stage and is credited to Rusby and White. A second sheet, with a larger quantity of mature fruits, was credited to O. E. White as number 972, collected 17 August 1921. Rusby admitted that he was sick most of the trip and that White

did a large part of the collecting. It cannot be determined if these two collections are from the same plant.

Ruprechtia zernyi was originally described as a species of *Coccoloba* and is known from a single staminate collection that has very small leaves. It was made at Taperinha, near Santarém, Pará, Brazil. Comparable small leaves are found on many other specimens.

ADDITIONAL SPECIMENS SEEN. **Bolivia.** EDO. LA PAZ: Prov. S. Yungas, Basin Río Bopi, San Bartolomé (near Calisaya), *Krukoff 10126* (A, US). **Brazil.** EDO. PARÁ: Municipio de Oriximina, estrada Oriximina-Óbidos, *Cid, Ramos, Mota, & Rosas 2493* (A); Rio Trombetas, Oriximina, *M. Silva 1.702* (A); Óbidos, *Ducke 19542* (US); Santarém, *Spruce 903* (K); Belterra, *Baldwin 2751* (US). EDO. AMAZONAS: Urucará, São Sebastião, *M. Silva 1820* (US), *1824* (A); Manáos, Estrada do Aleixo, *Ducke 738* (NY, US), *Guédès 38* (US); Serra near Namorado Novo watershed between Rio Curuqueté & Rio Madeira at Abunã, *Prance et al. 14709* (A, K); Manaus, *Ducke 25.627* (US); Terr. Acre, near mouth of Rio Macauhan (tributary of Rio Yaco), *Krukoff 5791* (A, BM, K, M, NY, US); Rio Acre, *Ule 9350* (K); Rondônia, trail from W bank of Rio Madeira, 2 km below mouth of Rio Abunã, *Prance et al. 6043* (A, GH, K, NY, US). **Colombia.** EDO. MAGDALENA: Santa Marta, Río Frío, Quebrada Rodríguez, *F. Walker 1212* (US); Poponte, *C. Allen 929* (K). **Peru:** Río Acre, Seriugal Auristella, *Ule 9350* (US). **Venezuela.** DPTO. TRUJILLO: Quebrada Seca bridge & R. Motatán, *Pittier 13299* (A, US), *13302* (A, M, US).

UNPLACED COLLECTIONS

Two collections from Venezuela have not been adequately placed. *Wurdack & Monachino 41230* (A, US), from Edo. Bolívar, northernmost slopes of Cerro Baraguán, and *Bunting & Aristeguieta 6111* (A), from Edo. Zulia, carretera Maracaibo-Carora, are both staminate plants described as small trees to 6 m or less. Neither collection fits any known species of *Ruprechtia*, and each may represent a new species. I prefer to delay applying any names to this material until fruiting material is known.

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